for you belower.

Access DB# 114375

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name:	biba Qoza	Examiner #: 74/4/ Date: 2/10/0 # Serial Number: 10/049,980	2
Art Unit: 1616 Phone	Number 30_ 062	Serial Number: 10 /049,980	_
Mail Box and Bldg/Room Locati	on: 4674Res	sults Format Preferred (circle). PAPER DISK E-N	/AIL
If more than one search is sub	mitted, please priorit	ize searches in order of need. *****************	****
Include the elected species or structures	, keywords, synonyms, acro ns that may have a special n	e as specifically as possible the subject matter to be searched onyms, and registry numbers, and combine with the concept neaning. Give examples or relevant citations, authors, etc, if id abstract.	or .
Title of Invention:	ungicide		
Inventors (please provide full names):	Tracey C	ook et al.	
	<i>U</i>		
Earliest Priority Filing Date:	3/18/1999	PCT/Eloo/08268	.5
*For Sequence Searches Only* Please inc	lude all pertinent information	(parent, child, divisional, or issued patent numbers) along with t	the
ECEIVE STORY STORY Please	Search for	or The Composing Cl	, / , , , , , , , , , , , , , , , , , ,
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STAFF USE ONLY	Type of Search	Vendors and cost where applicable	Para Arthur.
Searcher:	NA Sequence (#)	STN	
Scarcher Phone #: 77504	AA Sequence (#)	Dialog	
Searcher Location:	Structure (#)	Questel/Orbit	
Date Searcher Picked Up: 2 19	Bibliographic	Dr.Link	
Date Completed: 7/1/G	Litigation	Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext	Sequence Systems	

Patent Family

Other

PTO-1590 (8-01)

Clerical Prep Time:

Online Time:

=> fil reg FILE 'REGISTRY' ENTERED AT 17:45:25 ON 19 FEB 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 FEB 2004 HIGHEST RN 651705-73-6 DICTIONARY FILE UPDATES: 18 FEB 2004 HIGHEST RN 651705-73-6

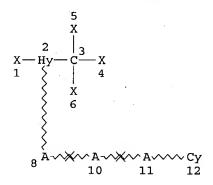
TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> d sta que l15 L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS MCY UNS AT 2
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E5 C E1 N AT

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L2 925618 SEA FILE=REGISTRY ABB=ON PLU=ON 46.156.30/RID AND NR>=2

L4 1334 SEA FILE=REGISTRY SUB=L2 SSS FUL L1

L5 STR

O-≫N-≫C @20 21 @22

VAR G1=11-2 13-10/14-2 16-10/17-2 19-10/20-2 22-10/23-2 25-10/26-2 28-10/29-2 31-10/19-2 17-10
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DEFAULT MLEVEL IS ATOM
GGCAT IS MCY UNS AT 2
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GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 29

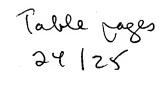
STEREO ATTRIBUTES: NONE

L7 1166 SEA FILE=REGISTRY SUB=L4 SSS FUL L5 L8 STR

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GRAPH ATTRIBUTES: RSPEC 15 21 NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE



STR

VAR G1=20/26/29 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

**GRAPH ATTRIBUTES:** RSPEC 15 21 NUMBER OF NODES IS

STEREO ATTRIBUTES: NONE

L12 38 SEA FILE=REGISTRY SUB=L7 SSS FUL (L8 OR L9) L13 35 SEA FILE=REGISTRY ABB=ON PLU=ON L12 AND 2/NR

L14 3 SEA FILE=REGISTRY ABB=ON PLU=ON L13 AND C13H7CL3F3N3O

L15 1 SEA FILE=REGISTRY ABB=ON PLU=ON L14 AND 326807-66-3/BI

#### => d ide can 115

L15 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN **326807-66-3** REGISTRY

CN Benzoic acid, 2,6-dichloro-, 2-[3-chloro-5-(trifluoromethyl)-2-

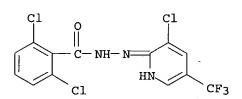
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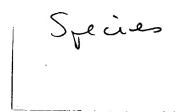
FS 3D CONCORD

MF C13 H7 C13 F3 N3 O

SR CA

LC STN Files: CA, CAPLUS, CHEMCATS





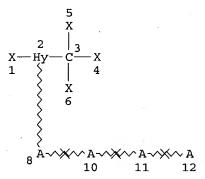
### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

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=> d sta que 146
L2
        925618 SEA FILE=REGISTRY ABB=ON PLU=ON 46.156.30/RID AND NR>=2
L44
               STR
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NODE ATTRIBUTES:

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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

8306 SEA FILE=REGISTRY SUB=L2 SSS FUL L44

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8306 ANSWERS

SEARCH TIME: 00.00.01

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L4
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                SAV L4 QAZI049/A
                STR L1
L5
L6
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L7
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                SAV L7 QAZI049A/A
L8
                STR
L9
                STR L8
L10
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L12
                SAV L12 QAZI049B/A
L13
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L14
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                SEL RN 2
              1 S L14 AND E1
L15
             34 S L13 NOT L15
L16
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L18
              7 S L17 AND C6/ES
L19
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     FILE 'USPATFULL, USPAT2' ENTERED AT 17:31:01 ON 19 FEB 2004
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             74 S E3-E12, E34, E35
L23
                E HARDY D/AU
L24
            214 S E3-E18, E23-E34
                E MOLONEY B/AU
             16 S E5-E7
L25
                E O MAHONY M/AU
             41 S E3, E5, E10, E11
L26
                E OMAHONY M/AU
                E MAHONY M/AU
L27
               9 S E3, E5
                E PETTETT M/AU
L28
              6 S E4-E6
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L29
            412 S E3-E19
L30
             13 S E59-E61
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L31
             16 S E4
                E AVENTIS/PA,CS
           1977 S E3,E4
L32
L33
              2 S L13
L34
              4 S L12
L35
              1 S. L23-L32 AND L33
L36
              1 S L23-L32 AND L34
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L37
L38
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L39
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L41
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L42
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L43
                STR L1
L44
                STR L43
L45
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L46
           8306 S L44 FUL SUB=L2
                SAV L46 QAZI049C/A
L47
            190 S L39 AND L46
L48
             24 S L39 NOT L47
L49
              1 S L48 AND IDS/CI
            191 S L47,L49
L50
L51
            190 S L50 NOT L15
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L52
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L53
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L54
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L55
              3 S L33, L34 NOT L22
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L56

5 S L52-L55

#### FILE 'REGISTRY' ENTERED AT 17:45:25 ON 19 FEB 2004

=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 17:45:58 ON 19 FEB 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 19 Feb 2004 VOL 140 ISS 8 FILE LAST UPDATED: 18 Feb 2004 (20040218/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

#### => d all hitstr 122

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ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
L22
     2001:137193 HCAPLUS
AN
DN
     134:178467
     Entered STN: 25 Feb 2001
ED
     Preparation of pyridine derivatives as phytopathogenic fungicides
TI
    Cooke, Tracey; Hardy, David; Moloney, Brian Anthony; O'Mahony, Mary
IN
     Josephine; Pettett; Michael George; Patel, Gita; Schnatterer, Stefan
PΑ
     Aventis CropScience GmbH, Germany
    PCT Int. Appl., 57 pp.
SO
                                                         One rej.
Port Speciels
    CODEN: PIXXD2
DT
    Patent
LA-
    English
TC
     ICM C07D213-61
         C07D213-89; C07D405-12; C07D213-77; C07D401
          C07D213-64; C07D409-12; C07D417-12; C07D498
          A01N043-40
CC
    27-16 (Heterocyclic Compounds (One Hetero Atom))
```

Section cross-reference(s): 5 FAN.CNT 1

	PATENT NO.			KIND DATE				APPLICATION NO.				DATE						
										-								
ΡI	WO 2001012604		A1 20010222			WO 2000-EP8268				20000811								
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			CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
		•	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	ΝZ,	PL,	PT,	RO,	RU,
			SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
			YU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	KZ,	MD,	RU,	ТJ,	TM				
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,
			CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG			
	BR 2000013369			Α	A 20020507				BR 2000-13369 20000811									
	EP 1204642		Α	A1 20020515				EP 2000-954651				1	20000811					
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			LT.	LV.	FI,	RO,	MK,	CY,	AL									

JP 2003507368 T2 20030225 JP 2001-517502 20000811
PRAI GB 1999-19558 A 19990818
WO 2000-EP8268 W 20000811
OS MARPAT 134:178467
GI

Ι

The title compds. A1LA2 [A1 = (un) substituted 2-pyridyl or its N-oxide; Ar2 = (un) substituted heterocyclyl, carbocyclyl; L = a 3-atom linker selected from CHR1NR3CHR2, NR3NR4C:X, C:XNR3CHR1, etc. (wherein A1 is attached to the left hand side of linker L); R1, R2 = CN, NO2, halo, etc.; R3, R4 = CN, NO2, alkyl, etc.; any of R1-R4, together with the interconnecting atoms, can form a 5-6 membered ring with any other R1-R4, or any R1-R4, together with the interconnecting atoms can form a 5-6 membered ring with A2; X = O, S, N(alkyl), etc.], useful as phytopathogenic fungicides, were prepared Thus, reacting 1-(3,4-difluorophenyl)-1-ethanamine with 3-chloro-5-(trifluoromethyl) pyridine-2-carboxaldehyde in the presence of Et3N in CH(OMe)3 followed by addition of NaBH3CN/THF and AcOH afforded the title compound I which showed moderate to total control against Leptosphaeria nodorum at 500 ppm or less.

ST pyridine prepn agrochem fungicide

IT Fungicides

IT

IT

(agrochem.; preparation of pyridine derivs. as phytopathogenic fungicides) 326807-13-0P 326808-86-0P RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT

(Reactant or reagent); USES (Uses) (preparation of pyridine derivs. as phytopathogenic fungicides) 326476-24-8P 326807-15-2P 326807-16-3P 116389-04-9P 326807-14-1P 326807-17-4P 326807-18-5P 326807-19-6P 326807-20-9P 326807-21-0P 326807-26-5P 326807-22-1P 326807-23-2P 326807-24-3P 326807-25-4P 326807-31-2P 326807-29-8P 326807-30-1P 326807-27-6P 326807-28-7P 326807-36-7P 326807-34-5P 326807-35-6P 326807-33-4P 326807-32-3P 326807-38-9P 326807-39-0P 326807-40-3P 326807-41-4P 326807-37-8P 326807-45-8P 326807-46-9P 326807-42-5P 326807-43-6P 326807-44-7P 326807-49-2P 326807-48-1P 326807-50-5P 326807-51-6P 326807-47-0P 326807-55-0P 326807-56-1P 326807-52-7P 326807-53-8P 326807-54-9P 326807-59-4P 326807-60-7P 326807-61-8P 326807-57-2P 326807-58-3P 326807-64-1P 326807-65-2P 326807-63-0P 326807-62-9P 326807-67-4P 326807-68-5P 326807-69-6P 326807-66-3P 326807-71-0P 326807-72-1P 326807-73-2P 326807-74-3P 326807-70-9P 326807-76-5P 326807-77-6P 326807-78-7P 326807-79-8P 326807-75-4P 326807-80-1P 326807-81-2P 326807-82-3P 326807-83-4P 326807-84-5P 326807-85-6P 326807-86-7P 326807-87-8P 326807-88-9P 326807-89-0P 326807-94-7P 326807-90-3P 326807-91-4P 326807-92-5P 326807-93-6P 326807-98-1P 326807-99-2P 326807-95-8P 326807-96-9P 326807-97-0P 326808-00-8P 326808-01-9P 326808-02-0P 326808-03-1P 326808-04-2P 326808-07-5P 326808-08-6P 326808-09-7P 326808-05-3P 326808-06-4P 326808-11-1P 326808-12-2P 326808-13-3P 326808-14-4P 326808-10-0P 326808-15-5P 326808-16-6P 326808-17-7P 326808-18-8P 326808-19-9P 326808-20-2P 326808-21-3P 326808-22-4P 326808-23-5P 326808-24-6P 326808-29-1P 326808-25-7P 326808-26-8P 326808-27-9P 326808-28-0P

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     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of pyridine derivs. as phytopathogenic fungicides)
                               89-98-5, 2-Chlorobenzaldehyde
                                                                  118-91-2,
     86-55-5, 1-Naphthoic acid
                            608-31-1, 2,6-Dichloroaniline
                                                             614-21-1,
     2-Chlorobenzoic acid
                           1777-82-8, 2,4-Dichlorobenzyl alcohol
                                                                    3034-19-3,
     2-Nitroacetophenone
                              3886-69-9
                                         4659-45-4, 2,6-Dichlorobenzoyl
     2-Nitrophenylhydrazine
               69045-84-7, 2,3-Dichloro-5-trifluoromethylpyridine
     chloride
     70591-20-7, [(Diphenylmethylene)amino]methyl cyanide
                                                             75408-89-8,
     4-Acetylbiphenyl oxime
                              79456-26-1, 2-Amino-3-chloro-5-
     trifluoromethylpyridine
                              89570-82-1
                                            118386-83-7
                                                           175277-50-6,
     3-Chloro-5-trifluoromethylpyridine-2-carboxaldehyde
                                                            175277-52-8,
     3-Chloro-2-(chloromethyl)-5-trifluoromethylpyridine
                                                            276875-21-9,
     1-(3,4-Difluorophenyl)-1-ethanamine
                                           326809-08-9
                                                          326809-09-0
     326809-10-3, 2-(3-Bromo-4-methoxyphenyl)-1H-imidazole
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of pyridine derivs. as phytopathogenic fungicides)
              THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
        30
(1) Agrevo Uk Ltd; GB 2307177 A 1997 HCAPLUS
(2) Agrevo Uk Ltd; WO 9907687 A 1999 HCAPLUS
(3) Anon; PATENT ABSTRACTS OF JAPAN 1983, V007(114), PC-166
(4) Anon; PATENT ABSTRACTS OF JAPAN 1989, V013(379), PC-628
(5) Anon; PATENT ABSTRACTS OF JAPAN 1990, V014(310), PC-0736
(6) Anon; PATENT ABSTRACTS OF JAPAN 1992, V016(148), PC-0928
(7) Anon; PATENT ABSTRACTS OF JAPAN 1995, V1995(04)
(8) Basf Aq; EP 0350691 A 1990 HCAPLUS
(9) Basf Ag; WO 9710215 A 1997 HCAPLUS
(10) Bayer Ag; EP 0573883 A 1993 HCAPLUS
(11) Briggs, G; WO 9850352 A 1998 HCAPLUS
(12) Ciba Geigy Ag; EP 0288976 A 1988 HCAPLUS
(13) Ciba Geigy Ag; EP 0577555 A 1994 HCAPLUS
(14) Dow Chemical Co; GB 2068365 A 1981 HCAPLUS
(15) Dow Chemical Co; EP 0287691 A 1988 HCAPLUS
(16) Hamprecht, G; WO 9842671 A 1998 HCAPLUS
(17) Ihara Chemical Ind Co; EP 0648752 A 1995 HCAPLUS
(18) Ishihara Sangyo Kaisha Ltd; JP 02104575 A 1990 HCAPLUS
(19) Ishihara Sangyo Kaisha Ltd; JP 07025853 A 1995 HCAPLUS
(20) Ishihara Sangyo Kk; JP 58035174 A 1983 HCAPLUS
(21) Kyowa Hakko Kogyo Kk; EP 0882717 A 1998 HCAPLUS
(22) La Roche, H; EP 0270061 A 1988 HCAPLUS
(23) Minn; HCAPLUS
(24) Minn; SYNLETT 1991, 2, P115 HCAPLUS
(25) Mitsubishi Petrochem Co Ltd; JP 04005282 A 1992 HCAPLUS
(26) Mitsui Petrochem Ind Ltd; JP 01131146 A 1989 HCAPLUS
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(27) Moloney Brian Anthony; WO 9942447 A 1999 HCAPLUS (28) Sumitomo Chemical Co; EP 0469711 A 1992 HCAPLUS

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RE

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(29) Sumitomo Chemical Co; EP 0648729 A 1995 HCAPLUS
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(30) Uniroyal Chem Co Inc; WO 9207848 A 1992 HCAPLUS

IT 326807-66-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of pyridine derivs. as phytopathogenic fungicides)

RN 326807-66-3 HCAPLUS

CN Benzoic acid, 2,6-dichloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

#### => => d 156 all fhitstr

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ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
L56
     2001:137193 HCAPLUS
AN
DN
     134:178467
     Entered STN: 25 Feb 2001
ED
     Preparation of pyridine derivatives as phytopathogenic fungicides
ΤI
     Cooke, Tracey; Hardy, David; Moloney, Brian
IN
     Anthony; O'Mahony, Mary Josephine; Pettett, Michael
     George; Patel, Gita; Schnatterer, Stefan
     Aventis CropScience GmbH, Germany
PA
     PCT Int. Appl., 57 pp.
SO
                                                             Oct - EP00-8268
     CODEN: PIXXD2
DT
     Patent
LA
     English
IC
         C07D213-61
     ICM
         C07D213-89; C07D405-12; C07D213-77; C07D401-12
          C07D213-64; C07D409-12; C07D417-12; C07D498-04
          A01N043-40
     27-16 (Heterocyclic Compounds (One Hetero Atom))
CC
     Section cross-reference(s): 5
FAN.CNT 1
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KIND DATE APPLICATION NO. DATE PATENT NO. \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_ \_\_\_\_\_ WO 2000-EP8268 20010222 20000811 PΙ WO 2001012604 **A1** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, UA, UG, US, UZ, VN, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TMRW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 20020507 BR 2000-13369 20000811 BR 2000013369 Α EP 1204642 A1 20020515 EP 2000-954651 20000811 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, IE, SI, LT, LV, FI, RO, MK, CY, AL

20000811

JP 2003507368 T2 20030225 JP 2001-517502 PRAI GB 1999-19558 A 19990818

WO 2000-EP8268 W 20000811

OS MARPAT 134:178467 GI

The title compds. A1LA2 [A1 = (un) substituted 2-pyridyl or its N-oxide; Ar2 = (un) substituted heterocyclyl, carbocyclyl; L = a 3-atom linker selected from CHR1NR3CHR2, NR3NR4C:X, C:XNR3CHR1, etc. (wherein A1 is attached to the left hand side of linker L); R1, R2 = CN, NO2, halo, etc.; R3, R4 = CN, NO2, alkyl, etc.; any of R1-R4, together with the interconnecting atoms, can form a 5-6 membered ring with any other R1-R4, or any R1-R4, together with the interconnecting atoms can form a 5-6 membered ring with A2; X = O, S, N(alkyl), etc.], useful as phytopathogenic fungicides, were prepared Thus, reacting 1-(3,4-difluorophenyl)-1-ethanamine with 3-chloro-5- (trifluoromethyl) pyridine-2-carboxaldehyde in the presence of Et3N in CH(OMe)3 followed by addition of NaBH3CN/THF and AcOH afforded the title compound I which showed moderate to total control against Leptosphaeria nodorum at 500 ppm or less.

Ι

ST pyridine prepn agrochem fungicide

IT Fungicides

IT

IT

(agrochem.; preparation of pyridine derivs. as phytopathogenic fungicides) 326807-13-0P 326808-86-0P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of pyridine derivs. as phytopathogenic fungicides)

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326807-24-3P 326807-25-4P 326807-26-5P
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    326809-05-6P 326809-06-7P 326809-07-8P
    326812-96-8P
    RL: AGR (Agricultural use); BAC (Biological activity or effector, except
    adverse); BSU (Biological study, unclassified); SPN (Synthetic
    preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of pyridine derivs. as phytopathogenic fungicides)
    86-55-5, 1-Naphthoic acid 89-98-5, 2-Chlorobenzaldehyde
                                                                 118-91-2,
                          608-31-1, 2,6-Dichloroaniline
                                                            614-21-1,
    2-Chlorobenzoic acid
                           1777-82-8, 2,4-Dichlorobenzyl alcohol
                                                                   3034-19-3.
    2-Nitroacetophenone
                                         4659-45-4, 2,6-Dichlorobenzoyl
    2-Nitrophenylhydrazine
                              3886-69-9
               69045-84-7, 2,3-Dichloro-5-trifluoromethylpyridine
     chloride
    70591-20-7, [(Diphenylmethylene)amino]methyl cyanide
                                                            75408-89-8,
     4-Acetylbiphenyl oxime
                             79456-26-1, 2-Amino-3-chloro-5-
                              89570-82-1
     trifluoromethylpyridine
                                            118386-83-7
                                                          175277-50-6,
     3-Chloro-5-trifluoromethylpyridine-2-carboxaldehyde
                                                           175277-52-8,
     3-Chloro-2-(chloromethyl)-5-trifluoromethylpyridine
                                                           276875-21-9,
                                                         326809-09-0
     1-(3,4-Difluorophenyl)-1-ethanamine
                                           326809-08-9
     326809-10-3, 2-(3-Bromo-4-methoxyphenyl)-1H-imidazole
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of pyridine derivs. as phytopathogenic fungicides)
RE.CNT
              THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Agrevo Uk Ltd; GB 2307177 A 1997 HCAPLUS
(2) Agrevo Uk Ltd; WO 9907687 A 1999 HCAPLUS
(3) Anon; PATENT ABSTRACTS OF JAPAN 1983, V007(114), PC-166
(4) Anon; PATENT ABSTRACTS OF JAPAN 1989, V013(379), PC-628
(5) Anon; PATENT ABSTRACTS OF JAPAN 1990, V014(310), PC-0736
(6) Anon; PATENT ABSTRACTS OF JAPAN 1992, V016(148), PC-0928
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IT

RE

- (7) Anon; PATENT ABSTRACTS OF JAPAN 1995, V1995(04)
- (8) Basf Ag; EP 0350691 A 1990 HCAPLUS
- (9) Basf Ag; WO 9710215 A 1997 HCAPLUS
- (10) Bayer Ag; EP 0573883 A 1993 HCAPLUS
- (11) Briggs, G; WO 9850352 A 1998 HCAPLUS
- (12) Ciba Geigy Ag; EP 0288976 A 1988 HCAPLUS
- (13) Ciba Geigy Ag; EP 0577555 A 1994 HCAPLUS
- (14) Dow Chemical Co; GB 2068365 A 1981 HCAPLUS
- (15) Dow Chemical Co; EP 0287691 A 1988 HCAPLUS
- (16) Hamprecht, G; WO 9842671 A 1998 HCAPLUS
- (17) Ihara Chemical Ind Co; EP 0648752 A 1995 HCAPLUS
- (18) Ishihara Sangyo Kaisha Ltd; JP 02104575 A 1990 HCAPLUS
- (19) Ishihara Sangyo Kaisha Ltd; JP 07025853 A 1995 HCAPLUS
- (20) Ishihara Sangyo Kk; JP 58035174 A 1983 HCAPLUS
- (21) Kyowa Hakko Kogyo Kk; EP 0882717 A 1998 HCAPLUS
- (22) La Roche, H; EP 0270061 A 1988 HCAPLUS
- (23) Minn; HCAPLUS
- (24) Minn; SYNLETT 1991, 2, P115 HCAPLUS
- (25) Mitsubishi Petrochem Co Ltd; JP 04005282 A 1992 HCAPLUS
- (26) Mitsui Petrochem Ind Ltd; JP 01131146 A 1989 HCAPLUS
- (27) Moloney Brian Anthony; WO 9942447 A 1999 HCAPLUS
- (28) Sumitomo Chemical Co; EP 0469711 A 1992 HCAPLUS
- (29) Sumitomo Chemical Co; EP 0648729 A 1995 HCAPLUS
- (30) Uniroyal Chem Co Inc; WO 9207848 A 1992 HCAPLUS
- IT 326807-13-0P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of pyridine derivs. as phytopathogenic fungicides)

RN 326807-13-0 HCAPLUS

CN 2-Pyridineacetic acid, 3-chloro-α-[(phenylmethyl)amino]-5-(trifluoromethyl)-, ethyl ester (9CI) (CA INDEX NAME)

# => d 156 all 2-5 hitstr

- L56 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 2001:136944 HCAPLUS
- DN 134:174247
- ED Entered STN: 25 Feb 2001
- TI Preparation of fungicidal nitrogen compounds.
- IN Cooke, Tracey; Ekwuru, Tennyson; Hardy, David;
  Millward, Peter; Moloney, Brian; Pettinger, Andrew; Thomas,
  Peter Stanley; Turner, Richar Michael
- PA Aventis CropScience GmbH, Germany
- SO PCT Int. Appl., 42 pp. CODEN: PIXXD2
- DT Patent
- LA English
- IC ICM A01N043-40 ICS A01N043-82; A01N043-80; A01N043-54; A01N043-56; A01N043-90;

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A01N043-50; A01N043-78; A01N043-42; A01N043-60; A01N053-00;
          A01N047-38; A01N047-40; A01N047-24
     5-2 (Agrochemical Bioregulators)
CC
     Section cross-reference(s): 27
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
                                                              DATE
                                                              20000811
                                            WO 2000-EP8269
     WO 2001011966
                       A1
                             20010222
PI
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
                     SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
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             IE, SI, LT, LV, FI, RO, MK, CY, AL
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PRAI GB 1999-19588
                        Α
                             19990818
     WO 2000-EP8269
                        W
                             20000811
OS
     MARPAT 134:174247
     The fungicidal nitrogen compds. A1CR1R2NR3LA2 and A1CR1R2N:CYA2 [A1 =
AB
     (un) unsubstituted 2-pyridyl or its N-oxide; A2 = (un) substituted
     heterocyclyl or carbocyclyl; R1, R2 = alkyl, alkenyl, cyano, nitro, halo,
     etc.; L = CO, CS, SO2, etc., Y = halo, alkoxy, alkylthio, etc.] are prepared
ST
     fungicide nitrogen compd prepn
                                        35447-75-7P 326476-24-8P
IT
     6635-41-2P, 2-Nitrobenzaldoxime
                                    326476-48-6P
                                                    326476-84-0P
     326476-25-9P
                    326476-26-0P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (intermediate in preparation of amide fungicide)
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                                     326477-09-2P
     RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
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qazi - 10 / 049980 (preparation as fungicide) 106-95-6, Allyl bromide, reactions 552-89-6, 2-Nitrobenzaldehyde IT5470-11-1, Hydroxylamine hydrochloride 16024-82-1 39920-37-1, 2,6-Dichlorophenyl isocyanate 68182-81-0 69045-84-7, 2,3-Dichloro-5-trifluoromethylpyridine 70591-20-7, (Diphenyl) methyleneaminoacetonitrile 154142-60-6 175277-74-4 239112-70-0 326476-49-7 326477-10-5 RL: RCT (Reactant); RACT (Reactant or reagent) (reactant in preparation of amide fungicide) RE.CNT THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD 12 RE(1) Agrevo Uk Ltd; WO 9907687 A 1999 HCAPLUS (2) Ash, M; US 4423222 A 1983 HCAPLUS (3) Bayer Ag; EP 0334138 A 1989 HCAPLUS (4) Bayer Ag; WO 9708135 A 1997 HCAPLUS (5) Dainippon; JP 08-208615 A 1996 HCAPLUS (6) Mitsubishi; JP 07-173139 A 1995 HCAPLUS (7) Mitsubishi Chem Corp; EP 0726266 A 1996 HCAPLUS (8) Mitsubishi Chem Ind; EP 0329020 A 1989 HCAPLUS (9) Moloney, B; WO 9942447 A 1999 HCAPLUS (10) Takeda Chemical Industries Ltd; EP 0404190 A 1990 HCAPLUS

(11) Tokuyama, S; JP 64-003162 A 1989 HCAPLUS

(12) Torba, F; US 3609158 A 1971 HCAPLUS

IT 326476-24-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in preparation of amide fungicide)

RN 326476-24-8 HCAPLUS

CN 2-Pyridineacetonitrile, 3-chloro-α-[(diphenylmethylene)amino]-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

WO 9324468

PΙ

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ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
L56
     1994:217743 HCAPLUS
AN
DN
     120:217743
ED
     Entered STN: 30 Apr 1994
     Preparation of azinylhydroxybenzamides as herbicides and plant growth
TТ
     regulators
IN
     Luethy, Christoph; Fisher, Raymond
PΑ
     Ciba-Geigy A.-G., Switz.
     PCT Int. Appl., 63 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
     ICM C07D239-52
IC
         A01N043-54; C07D403-12; C07D413-12; C07D409-12; C07D251-46;
          C07D239-60
CC
     28-19 (Heterocyclic Compounds (More Than One Hetero Atom))
     Section cross-reference(s): 5
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
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19931209

**A1** 

WO 1993-EP1264

19930521

```
AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN,
             MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, VN
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
             BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
                                                           SN, TD, TG
     AU 9343146
                       A1
                             19931230
                                            AU 1993-43146
                                                              19930521
                                            ZA 1993-3815
                                                              19930601
     ZA 9303815
                        Α
                             19931230
PRAI CH 1992-1771
                             19920602
     WO 1993-EP1264
                             19930521
     MARPAT 120:217743
os
GΙ
```

Title compds. [I; A = H, NR5R6, N:R7R8, OR9; X = N, CR4; Y = N, or if Z =AB N, may also = methine, fluoromethine, chloromethine; R1 = alkyl, alkynyl, cyclopropyl, chloromethyl, F2CH, F3C, MeO, EtO, alkylamino, Me2N, etc.; R2 = H, Me, F, Cl, alkoxy, difluoromethoxy, trifluoroethoxy, MeS, EtS; R3 = H, F, Cl, Me, MeO, EtO; R4 = H, F, Cl, Br, iodo, alkyl, CF3, vinyl, alkoxy, 2-propenyloxy, 2-propynyloxy, benzyloxy, PhO, triazolyl, thienyl, pyrazolyl, thienyl, etc.; R5 = H, alkyl; R6 = H, (substituted) alkyl, Ph, naphthyl, pyridyl, quinolyl, alkylcarbonyl, PhCO, alkylsulfonyl, PhSO2, etc.; R5R6N = (substituted) heterocyclyl; R7 = H, alkyl, alkylthio; R8 = alkyl, cycloalkyl, (substituted) Ph, alkoxy, alkylthio, alkoxycarbonyl, cyano; R7R8 = (CH2)4-5, SCH2CH2S; R9 = H, alky1, alkeny1, alkyny1, carboxyalkyl, alkoxycarbonylalkyl, (substituted) PhCH2, Ph], were prepared Thus, ether II was stirred with NaH in THF to give title compound III. Several I at 3 kg/ha preemergent gave 80-100% control of Echinochloa crus-galli, Avena fatua, Abutilon theoplasti, etc.

ST azinylhydroxybenzamide prepn herbicide; plant growth regulator azinylhydroxybenzamide

IT Herbicides

(azinylhydroxybenzamides)

IT Plant hormones and regulators

RL: RCT (Reactant); RACT (Reactant or reagent)

(azinylhydroxybenzamides)

153908-91-9P 153908-92-0P 153908-93-1P 153908-94-2P IT 153908-90-8P 153908-98-6P 153908-99-7P 153908-95-3P 153908-96-4P 153908-97-5P 153909-00-3P 153909-01-4P 153909-02-5P 153909-03-6P 153909-04-7P 153909-06-9P 153909-07-0P 153909-08-1P 153909-09-2P 153909-05-8P 153909-10-5P 153909-11-6P **153909-12-7P** 153909-13-8P

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153909-18-3P
                    153909-15-0P
                                    153909-16-1P
                                                   153909-17-2P
     153909-14-9P
     153909-19-4P
                    153909-20-7P
                                    153909-21-8P
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                    153909-25-2P
                                    153909-26-3P
                                                   153909-27-4P
                                                                   153909-28-5P
                                                                   153909-61-6P
     153909-29-6P
                    153909-30-9P
                                    153909-31-0P
                                                   153909-32-1P
     153909-62-7P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of, as herbicide and plant growth regulator)
IT
     141112-44-9P
                    141112-46-1P
                                    141112-49-4P
                                                   141112-50-7P
                                                                   141112-51-8P
                                                   141112-68-7P
                                                                   141112-72-3P
     141112-54-1P
                    141112-55-2P
                                    141112-66-5P
                                    144078-96-6P
                                                   153909-33-2P
                                                                   153909-34-3P
     141112-86-9P
                    141112-88-1P
                                    153909-37-6P
                                                   153909-38-7P
                                                                   153909-39-8P
     153909-35-4P
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     153909-40-1P
                    153909-41-2P
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                                    153909-52-5P
                                                   153909-53-6P
                                                                   153909-54-7P
                    153909-56-9P
                                    153909-57-0P
                                                   153909-58-1P
                                                                   153909-59-2P
     153909-55-8P
     153909-60-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of, as intermediate for azinylhydroxybenzamide herbicide and
        plant growth regulator)
     593-56-6, O-Methylhydroxylamine hydrochloride
                                                      39943-64-1
                                                                    110284-78-1
IT
     113761-79-8
                   141112-41-6
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, in preparation of azinylhydroxybenzamide herbicide and plant
        growth regulator)
IT
     153909-12-7P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of, as herbicide and plant growth regulator)
     153909-12-7 HCAPLUS
RN
     Benzoic acid, 2-hydroxy-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-
CN
```

$$\begin{array}{c|c} & \text{MeO} & \text{OMe} \\ & \text{N} & \text{N} & \text{O} \\ & \text{N} & \text{N} & \text{N} \\ & \text{F}_3\text{C} & \text{C1} & \text{HO} \end{array}$$

C07D413-14

```
ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
L56
ΑN
     1992:214529 HCAPLUS
DN
     116:214529
ED
     Entered STN: 31 May 1992
     Preparation of [(pyrimidin-2-yl)oxy]benzohydrazides and analogs as
TI
     herbicides
     Hiratsuka, Mitsunori; Hirata, Naonori; Saitoh, Kazuo; Shibata, Hideyuki
IN
     Sumitomo Chemical Co., Ltd., Japan
PA
SO
     Eur. Pat. Appl., 83 pp.
     CODEN: EPXXDW
DT
     Patent
LΑ
     English
IC
     ICM
          C07D239-60
          C07D239-34; C07D239-38; C07D401-12; A01N043-54; C07D413-12;
```

(4,6-dimethoxy-2-pyrimidinyl)hydrazide (9CI) (CA INDEX NAME)

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 5

FAN.	CNT 1					
	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE
ΡI	EP 469711	A1	19920205		EP 1991-305672	19910624
	R: BE, CH,	DE, ES	, FR, GB,	IT,	LI, NL	
	JP 05004971	A2	19930114		JP 1991-173257	19910617
	AU 9179136	A1	19920109		AU 1991-79136	19910620
	AU 638840	B2	19930708			
	CA 2046206	AA	19920106		CA 1991-2046206	19910704
	BR 9102835	Α	19920204		BR 1991-2835	19910704
	US 5135563	Α	19920804		US 1991-726218	19910705
PRAI	JP 1990-178967		19900705			
	JP 1991-124816		19910426			
os	MARPAT 116:2145	29				
GI						

AB The title compds. [I; R1, R2 = C1-6 alkyl, (halo)C1-6 alkoxy, halo; X = 0, S; Z = N, CY4; Y1-Y3 = H, halo, C1-6 alkyl, C1-6 alkoxy; Y4 = H, HO, HS, NO2, halo, C1-6 alkyl, etc.] [II; R = NR3NR4R5; R3 = H, C1-6 alkyl, (un)substituted Ph; R4, R5 = H, C1-6 alkyl, (halo)C1-6 alkoxy, (un)substituted Ph, PhCH2, (un)substituted pyridyl, etc.] were prepared by amidation of the parent carboxylic acids (II; R = OH). Thus, a prestirred mixture of 1.10 g 2-(4,6-dimethoxypyrimidin-2-yl)oxybenzoic acid and 0.77 g N,N'-carbonyldiimidazole in 10 mL THF was treated at 0°-5° by 0.72 g hydrazine monohydrate and the whole stirred for 30 min at that temperature to give 0.95 g title compound (I; R1 = R2 = MeO, Y1 = Y2 = Y3 = H,

X =
O, Z = CH) (III; R = NHNH2). The latter at 2.5 g/a in a flooding
treatment test in paddy field had activity 4 (the highest activity being 5
on a 0-5 scale) against barnyardgrass, bulrush and arrowhead, vs. activity
0 for the structural analog III (R = NH2). Approx. 62 I were prepared and 2
specific I are claimed.

ST pyrimidinyloxybenzohydrazide prepn herbicide; amidation dimethoxypyrimidinyloxybenzoate hydrazine herbicide prepn

IT Herbicides

([(pyrimidin-2-yl)oxy]benzohydrazides and analogs)

IT 7803-57-8, Hydrazine monohydrate 32957-26-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation by, of (pyrimidinyloxy)benzoic acid derivative, in preparation of herbicide)

IT 113761-80-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation of, by aminooxazolidinone, in preparation of herbicide)

IT 110284-78-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation of, by hydrazine, in preparation of herbicide)

IT 141112-93-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as herbicid) 136187-62-7P 136187-63-8P 141112-38-1P 141112-39-2P IT 136187-64-9P 141112-40-5P 141112-41-6P 141112-42-7P 141112-43-8P 141112-44-9P 141112-45-0P 141112-46-1P 141112-47-2P 141112-48-3P 141112-49-4P 141112-50-7P 141112-51-8P 141112-52-9P 141112-53-0P 141112-54-1P 141112-55-2P 141112-56-3P 141112-57-4P 141112-58-5P 141112-59-6P 141112-60-9P 141112-61-0P 141112-62-1P 141112-63-2P 141112-64-3P 141112-65-4P 141112-66-5P 141112-67-6P 141112-68-7P 141112-72-3P 141112-73-4P 141112-69-8P 141112-70-1P 141112-71-2P 141112-77-8P 141112-74-5P 141112-75-6P 141112-76-7P 141112-78-9P 141112-79-0P 141112-80-3P 141112-81-4P 141112-82-5P 141112-83-6P 141112-84-7P 141112-85-8P 141112-86-9P 141112-90-5P 141112-91-6P 141112-87-0P 141112-88-1P 141112-89-2P 141112-92-7P 141126-07-0P 141126-08-1P RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

IT 141112-65-4P 141112-83-6P

(preparation of, as herbicide)

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)

RN 141112-65-4 HCAPLUS

CN Benzoic acid, 2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 141112-83-6 HCAPLUS

CN Benzoic acid, 2-chloro-6-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

```
DN
     109:124419
     Entered STN: 14 Oct 1988
ED
     Preparation of five-membered heterocycles with three heteroatoms, as
ŢΙ
     pesticides
TN
     Luethy, Christoph
     Hoffmann-La Roche, F., und Co. A.-G., Switz.
PA
     Eur. Pat. Appl., 59 pp.
SO
     CODEN: EPXXDW
DT
     Patent
LA
     German
IC
     ICM C07D271-10
     ICS C07D413-04; C07D249-12; C07D285-12; A01N043-653; A01N043-82
     5-4 (Agrochemical Bioregulators)
CC
     Section cross-reference(s): 1, 28
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
                                                             DATE
                            _____
                                            -----
                                            EP 1987-117698
     EP 270061
                       A2
                            19880608
                                                             19871130
PΙ
                       A3
                            19881117
     EP 270061
         R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL
                                            DK 1987-5709
                                                             19871030
     DK 8705709
                       Α
                            19880602
                                            ZA 1987-8811
                                                             19871124
     ZA 8708811
                       Α
                            19880727
                                           HU 1987-5338
                                                             19871127
     HU 45850
                       A2
                            19880928
                       A2
                                            JP 1987-303067
                                                             19871130
     JP 63154678
                            19880627
     BR 8706464
                       Α
                            19880712
                                            BR 1987-6464
                                                             19871130
                                                             19871201
                                            AU 1987-82036
     AU 8782036
                       Α1
                            19880602
                       B2
     AU 602372
                            19901011
                                            US 1987-126804
                                                             19871201
                       Α
     US 4943583
                            19900724
PRAI CH 1986-4785
                            19861201
                            19870916
     CH 1987-3571
os
     MARPAT 109:124419
```

$$X^{1}N-N$$
 $X$ 
 $R^{2}$ 
 $R^{2}$ 

116389-06-1P

116389-11-8P

GΙ

The title heterocycles I [R1 = (un) substituted Ph or pyridyl; R2 = AB substituted Ph; X = O, S, NR3, Y = S, O; R3 = Me, halomethyl, 1-propynyl] are prepared as insecticides and acaricides (no data). A mixture of 2-chloro-6-fluoro-N'-( $\alpha$ , $\alpha$ , $\alpha$ -trifluoro-otolyl)benzhydrazide, phosgene and toluene was refluxed for 16 h to give  $5-(2-\text{chloro}-6-\text{fluorophenyl})-3-(\alpha,\alpha,\alpha-\text{trifluoro-o-tolyl})-$ 1,3,4-oxadiazol-2(3H)one. An emulsion concentrate comprised I 250, N-methyl-2-pyrrolidone 400, Ankopal N-100 75, and Ca dodecylbenzenesulfonate 25 g and Solvesso-100 to 1L. pesticide oxadiazolone triazolone thiadiazolone prepn ST IT Pesticides (heterocycles with 3-heteroatoms, preparation of) 463-71-8, Thiophosgene 503-38-8, Trichloromethyl IT 75-44-5, Phosgene chloroformate 541-41-3, Ethyl chloroformate RL: RCT (Reactant); RACT (Reactant or reagent) (cyclization by, of benzhydrazide derivative) 116370-09-3P 116370-10-6P IT 107510-93-0P 107511-09-1P 107511-52-4P 116388-96-6P 116388-95-5P 116370-11-7P 116370-12-8P 116388-94-4P 116389-00-5P 116389-01-6P 116388-97-7P 116388-98-8P 116388-99-9P

116389-08-3P

116389-13-0P

116389-02-7P 116389-03-8P 116389-04-9P

116389-07-2P

116389-12-9P

116389-05-0P

116389-09-4P

116389-14-1P

116389-10-7P

```
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of)
                    116370-13-9P
ΙT
    116370-10-6P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of, with Et chloroformate)
IT
    107511-52-4P
                   116370-12-8P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of, with phosgene)
IT
     116370-13-9P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of, with thiophosgene)
     116370-09-3P
TT
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of, with trichloromethyl chloroformate)
IT
     107511-03-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and methylation of)
     116370-14-0P
IT
    RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
TΤ
     116369-81-4P
                    116369-82-5P
                                   116369-83-6P
                                                   116369-84-7P
                                                                  116369-85-8P
                                   116369-88-1P
                                                   116369-89-2P
                                                                  116369-90-5P
     116369-86-9P
                    116369-87-0P
     116369-91-6P
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                                                   116369-94-9P
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                    116369-92-7P
     116369-96-1P
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                                   116369-98-3P
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                                                   116370-04-8P
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     116370-01-5P
                    116370-02-6P
                                                                  116400-41-0P
     116370-06-0P
                    116370-07-1P
                                   116370-08-2P
                                                   116370-15-1P
     116400-42-1P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of, as pesticide)
     41052-75-9, 2-Chlorophenylhydrazine hydrochloride
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with chlorofluorobenzoyl chloride)
     79455-63-3, 2-Chloro-6-fluorobenzoyl chloride
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with chlorophenylhydrazine)
     365-34-4, o-Trifluoromethylphenylhydrazine
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with difluorobenzoyl chloride)
IT
     3107-34-4
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with difluorobenzoyl fluoride)
     18063-02-0, 2,6-Difluorobenzoyl chloride
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with trifluoromethylphenylhydrazine)
     13656-41-2, 2,6-Difluorobenzoyl fluoride
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with trifluorotolylhydrazine)
     116389-03-8P 116389-04-9P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of)
     116389-03-8 HCAPLUS
RN
     Benzoic acid, 2,6-difluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-
CN
     pyridinyl]hydrazide (9CI) (CA INDEX NAME)
```

RN 116389-04-9 HCAPLUS

CN Benzoic acid, 2-chloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

=> => fil reg FILE 'REGISTRY' ENTERED AT 17:47:19 ON 19 FEB 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 18 FEB 2004 HIGHEST RN 651705-73-6 DICTIONARY FILE UPDATES: 18 FEB 2004 HIGHEST RN 651705-73-6

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> => d ide can tot 157

L57 ANSWER 1 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 338770-92-6 REGISTRY

CN Benzoic acid, 2-(2-nitroethyl)-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C15 H12 C1 F3 N4 O3

SR Chemical Library

LC STN Files: CHEMCATS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 2 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 338770-54-0 REGISTRY

CN 1,2-Benzenedicarboxylic acid, mono[2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide] (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H9 C1 F3 N3 O3

SR Chemical Library

LC STN Files: CHEMCATS

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 3 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 338397-82-3 REGISTRY

CN Benzoic acid, 2-amino-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H10 Cl F3 N4 O

SR Chemical Library

LC STN Files: CHEMCATS

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 4 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-90-3 REGISTRY

CN Benzoic acid, 2-chloro-6-fluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H7 Cl2 F4 N3 O

SR CA

LC STN Files: CA, CAPLUS

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 5 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-89-0 REGISTRY

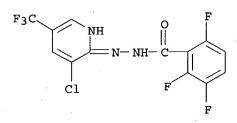
CN Benzoic acid, 2,3,6-trifluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

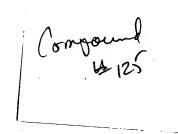
FS 3D CONCORD

MF C13 H6 Cl F6 N3 O

SR CA

LC STN Files: CA, CAPLUS





### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 6 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-88-9 REGISTRY

CN Cyclohexanecarboxylic acid, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H15 Cl F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 7 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-87-8 REGISTRY

CN Cyclopropanecarboxylic acid, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C10 H9 C1 F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

comfound \$ 123

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 8 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-85-6 REGISTRY

CN Benzoic acid, 2-chloro-6-fluoro-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H7 Cl2 F4 N3 O

SR CA

LC STN Files: CA, CAPLUS

Confound Apr1 1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

### REFERENCE 1: 134:178467

L57 ANSWER 9 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-84-5 REGISTRY

CN Benzoic acid, 2-methyl-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H11 Cl F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

### REFERENCE 1: 134:178467

L57 ANSWER 10 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-83-4 REGISTRY

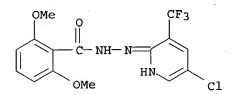
CN Benzoic acid, 2,6-dimethoxy-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C15 H13 Cl F3 N3 O3

SR CA

LC STN Files: CA, CAPLUS



Comfound

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

### REFERENCE 1: 134:178467

L57 ANSWER 11 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-82-3 REGISTRY

CN Benzoic acid, 2-nitro-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H8 Cl F3 N4 O3

SR CA

LC STN Files: CA, CAPLUS

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 12 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-81-2 REGISTRY

CN Benzoic acid, 2,6-dichloro-, 2-[5-chloro-3-(trifluoromethyl)-2-

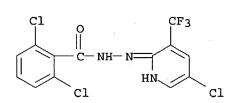
pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H7 Cl3 F3 N3 O

SR CA

LC STN Files: CA, CAPLUS



Conjourd HU3

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 13 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-80-1 REGISTRY

CN Cyclohexanecarboxylic acid, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H17 C1 F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 14 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-79-8 REGISTRY

CN Cyclopropanecarboxylic acid, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C11 H11 C1 F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

Conjound

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

- 1 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 15 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-77-6 REGISTRY

CN Benzoic acid, 2-chloro-6-fluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H9 C12 F4 N3 O

SR CA

LC STN Files: CA, CAPLUS

Comfound # 113 1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

#### REFERENCE 1: 134:178467

L57 ANSWER 16 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-76-5 REGISTRY

CN Benzoic acid, 2-methyl-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C15 H13 Cl F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

# REFERENCE 1: 134:178467

L57 ANSWER 17 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-75-4 REGISTRY

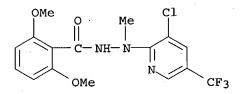
CN Benzoic acid, 2,6-dimethoxy-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C16 H15 Cl F3 N3 O3

SR CA

LC STN Files: CA, CAPLUS



Conjourd # 111

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

### REFERENCE 1: 134:178467

L57 ANSWER 18 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-74-3 REGISTRY

CN Benzoic acid, 2-nitro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H10 Cl F3 N4 O3

SR CA

LC STN Files: CA, CAPLUS

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 19 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-73-2 REGISTRY

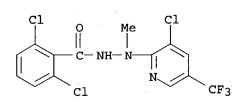
CN Benzoic acid, 2,6-dichloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H9 Cl3 F3 N3 O

SR CA

LC STN Files: CA, CAPLUS



Congound # 109

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 20 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-72-1 REGISTRY

CN Cyclohexanecarboxylic acid, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H15 Cl F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 21 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-71-0 REGISTRY

CN Cyclopropanecarboxylic acid, 2-[3-chloro-5-(trifluoromethyl)-2-

pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C10 H9 Cl F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

Confound #107

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

L57 ANSWER 22 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-69-6 REGISTRY

CN Benzoic acid, 2-methyl-, 2-[3-chloro-5-(trifluoromethyl)-2-

pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H11 C1 F3 N3 O

SR CA

LC STN Files: CA, CAPLUS

Compound # 105

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

#### REFERENCE 1: 134:178467

L57 ANSWER 23 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-68-5 REGISTRY

CN Benzoic acid, 2,6-dimethoxy-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C15 H13 Cl F3 N3 O3

SR CA

LC STN Files: CA, CAPLUS, CHEMCATS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

### REFERENCE 1: 134:178467

L57 ANSWER 24 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 326807-67-4 REGISTRY

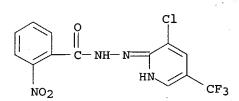
CN Benzoic acid, 2-nitro-, 2-[3-chloro-5-(trifluoromethyl)-2pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H8 Cl F3 N4 O3

SR CA

LC STN Files: CA, CAPLUS



Conjourd A 103

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

# REFERENCE 1: 134:178467

L57 ANSWER 25 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 287979-13-9 REGISTRY

CN Benzoic acid, 3-(trifluoromethyl)-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H8 C1 F6 N3 O SR CAS Client Services LC STN Files: CHEMCATS

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 26 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 287979-00-4 REGISTRY

CN Benzoic acid, 3,4-dichloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H7 C13 F3 N3 O

SR CAS Client Services

LC STN Files: CHEMCATS

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 27 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 255867-00-6 REGISTRY

CN Benzoic acid, 4-chloro-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H10 Cl2 F3 N3 O

SR CAS Client Services

LC STN Files: CHEMCATS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 28 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN RN 255866-99-0 REGISTRY

CN Benzoic acid, 2-chloro-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl],2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H10 Cl2 F3 N3 O

SR CAS Client Services

LC STN Files: CHEMCATS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 29 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 255866-98-9 REGISTRY

CN Benzoic acid, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]-2-

methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H11 C1 F3 N3 O

SR CAS Client Services

LC STN Files: CHEMCATS

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 30 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 255866-97-8 REGISTRY

CN Benzoic acid, 4-chloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H10 Cl2 F3 N3 O

SR CAS Client Services

LC STN Files: CHEMCATS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 31 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 255866-96-7 REGISTRY

CN Benzoic acid, 2-chloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H10 Cl2 F3 N3 O

SR CAS Client Services

LC STN Files: CHEMCATS

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 32 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 255866-95-6 REGISTRY

CN Benzoic acid, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C14 H11 C1 F3 N3 O

SR CAS Client Services

LC STN Files: CHEMCATS

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L57 ANSWER 33 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 153909-12-7 REGISTRY

CN Benzoic acid, 2-hydroxy-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-(4,6-dimethoxy-2-pyrimidinyl)hydrazide (9CI) (CA INDEX NAME)

MF C19 H15 Cl F3 N5 O4

SR CA

LC STN Files: CA, CAPLUS

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 120:217743

L57 ANSWER 34 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 141112-83-6 REGISTRY

CN Benzoic acid, 2-chloro-6-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C19 H14 Cl2 E3 N5 O4

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 116:214529

L57 ANSWER 35 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 141112-65-4 REGISTRY

CN Benzoic acid, 2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C19 H15 Cl F3 N5 O4

SR CA

LC STN Files: CA, CAPLUS, CHEMCATS, USPATFULL

#### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 116:214529

L57 ANSWER 36 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 116389-04-9 REGISTRY

CN Benzoic acid, 2-chloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H8 Cl2 F3 N3 O

SR CA

LC STN Files: CA, CAPLUS, CHEMCATS, USPATFULL

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:178467

REFERENCE 2: 109:124419

L57 ANSWER 37 OF 37 REGISTRY COPYRIGHT 2004 ACS on STN

RN 116389-03-8 REGISTRY

CN Benzoic acid, 2,6-difluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H7 Cl F5 N3 O

SR CA

LC STN Files: CA, CAPLUS, CHEMCATS, USPATFULL

```
· NH— N=
    Cl
```

```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

E COOKE T/AU 74 S E3-E12,E34,E35

E HARDY D/AU

214 S E3-E18, E23-E34 E MOLONEY B/AU

E O MAHONY M/AU

16 S E5-E7

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 109:124419

=> d his

L23

L24

L25

(FILE 'HOME' ENTERED AT 17:10:49 ON 19 FEB 2004) SET COST OFF

```
FILE 'REGISTRY' ENTERED AT 17:11:06 ON 19 FEB 2004
L1
L2
         925618 S 46.156.30/RID AND NR>=2
L3
             50 S L1 SAM SUB=L2
           1334 S L1 FUL SUB=L2
L4
                SAV L4 QAZI049/A
L5
                STR L1
             50 S L5 SAM SUB=L4
L6
L7
           1166 S L5 FUL SUB=L4
                SAV L7 QAZI049A/A
L8
                STR
Ь9
                STR L8
L10
              0 S L8 SAM SUB=L7
L11
              2 S L9 SAM SUB=L7
L12
             38 S (L8 OR L9) FUL SUB=L7
                SAV L12 QAZI049B/A
             35 S L12 AND 2/NR
L13
L14
              3 S L13 AND C13H7CL3F3N3O
                SEL RN 2
             1 S L14 AND E1
L15
             34 S L13 NOT L15
L16
             12 S L7 AND 13/C AND 3/CL AND 3/F AND 3/N AND 1/O AND 2/NR
L17
L18
              7 S L17 AND C6/ES
L19
              4 S L18 NOT L14
     FILE 'HCAOLD' ENTERED AT 17:30:56 ON 19 FEB 2004
              0 S L15
L20
     FILE 'USPATFULL, USPAT2' ENTERED AT 17:31:01 ON 19 FEB 2004
L21
              0 S L15
     FILE 'HCAPLUS' ENTERED AT 17:31:08 ON 19 FEB 2004
L22
              1 S L15
```

```
41 S E3, E5, E10, E11
L26
                E OMAHONY M/AU
                E MAHONY M/AU
              9 S E3,E5
L27
                E PETTETT M/AU
              6 S E4-E6
L28
                E PATEL G/AU
L29
            412 S E3-E19
             13 S E59-E61
L30
                E SCHNATTERER S/AU
             16 S E4
L31
                E AVENTIS/PA,CS
           1977 S E3,E4
L32
              2 S L13
L33
              4 S L12
L34
              1 S L23-L32 AND L33
L35
              1 S L23-L32 AND L34
L36
              1 S (WO2000-EP8268 OR GB99-19558)/AP,PRN
L37
              1 S L23-L36 AND L37
L38
                SEL RN
     FILE 'REGISTRY' ENTERED AT 17:35:57 ON 19 FEB 2004
            214 S E1-E214
L39
            180 S L39 AND L4
L40
            180 S L7 AND L40 .
L41
             34 S L39 NOT L41
L42
                STR L1
L43
L44
                STR L43
             50 S L44 SAM SUB=L2
L45
           8306 S L44 FUL SUB=L2
L46
                SAV L46 QAZI049C/A
            190 S L39 AND L46
L47
            24 S L39 NOT L47
L48
              1 S L48 AND IDS/CI
L49
L50
            191 S L47, L49
            190 S L50 NOT L15
L51
     FILE 'HCAPLUS' ENTERED AT 17:41:47 ON 19 FEB 2004
L52
              3 S. L51
              2 S L23-L32 AND L52
L53
              3 S L52, L53
L54
              3 S L33, L34 NOT L22
L55
L56
              5 S L52-L55
     FILE 'REGISTRY' ENTERED AT 17:45:25 ON 19 FEB 2004
     FILE 'HCAPLUS' ENTERED AT 17:45:58 ON 19 FEB 2004
     FILE 'REGISTRY' ENTERED AT 17:47:19 ON 19 FEB 2004
             37 S L12 NOT L15
L57
=> => d his
     (FILE 'HOME' ENTERED AT 18:15:21 ON 19 FEB 2004)
                SET COST OFF
     FILE 'REGISTRY' ENTERED AT 18:15:29 ON 19 FEB 2004
                ACT QAZI049B/A
               -----
L1
                STR
         925618) SEA FILE=REGISTRY ABB=ON PLU=ON 46.156.30/RID AND NR>=2
L2
L3
           1334) SEA FILE=REGISTRY SUB=L2 SSS FUL L1
    (
```

L4

STR

```
qazi - 10 / 049980
           1166) SEA FILE=REGISTRY SUB=L3 SSS FUL L4
L5
Ь6
                STR
                STR
ь7
             38 SEA FILE=REGISTRY SUB=L5 SSS FUL (L6 OR L7)
             37 S L8 NOT 326807-66-3
L9
     FILE 'HCAOLD' ENTERED AT 18:16:30 ON 19 FEB 2004
L10
              0 S L9
     FILE 'HCAPLUS' ENTERED AT 18:16:34 ON 19 FEB 2004
L11
              4 S L9
=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 18:16:51 ON 19 FEB 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 19 Feb 2004 VOL 140 ISS 8 FILE LAST UPDATED: 18 Feb 2004 (20040218/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

#### => d l11 all hitstr tot

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ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
    2001:137193 HCAPLUS
AN
DN
    134:178467
    Entered STN: 25 Feb 2001
ED
    Preparation of pyridine derivatives as phytopathogenic fungicides
TI
    Cooke, Tracey; Hardy, David; Moloney, Brian Anthony; O'Mahony, Mary
IN
     Josephine; Pettett, Michael George; Patel, Gita; Schnatterer, Stefan
    Aventis CropScience GmbH, Germany
PΑ
SO
     PCT Int. Appl., 57 pp.
    CODEN: PIXXD2
    Patent
DT
LA
    English
IC
     ICM C07D213-61
         C07D213-89; C07D405-12; C07D213-77; C07D401-12; C07D213-81;
          C07D213-64; C07D409-12; C07D417-12; C07D498-04; C07D401-06;
         A01N043-40
     27-16 (Heterocyclic Compounds (One Hetero Atom))
    Section cross-reference(s): 5
FAN.CNT 1
                     KIND DATE
    PATENT NO.
                                           APPLICATION NO.
                                                           DATE
                           -------
                                           ______
PΙ
    WO 2001012604
                     A1
                          20010222
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             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
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HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
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PRAI GB 1999-19558
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                       W
                            20000811
     WO 2000-EP8268
     MARPAT 134:178467
os
GΙ
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The title compds. A1LA2 [A1 = (un)substituted 2-pyridyl or its N-oxide; AB Ar2 = (un) substituted heterocyclyl, carbocyclyl; L = a 3-atom linker selected from CHR1NR3CHR2, NR3NR4C:X, C:XNR3CHR1, etc. (wherein A1 is attached to the left hand side of linker L); R1, R2 = CN, NO2, halo, etc.; R3, R4 = CN, NO2, alkyl, etc.; any of R1-R4, together with the interconnecting atoms, can form a 5-6 membered ring with any other R1-R4, or any R1-R4, together with the interconnecting atoms can form a 5-6 membered ring with A2; X = O, S, N(alkyl), etc.], useful as phytopathogenic fungicides, were prepared Thus, reacting 1-(3,4-difluorophenyl)-1-ethanamine with 3-chloro-5-(trifluoromethyl)pyridine-2-carboxaldehyde in the presence of Et3N in CH(OMe)3 followed by addition of NaBH3CN/THF and AcOH afforded the title compound I which showed moderate to total control against Leptosphaeria nodorum at 500 ppm or less.

Ι

pyridine prepn agrochem fungicide ST

IT Fungicides

326807-69-6P

IT

IT

(agrochem.; preparation of pyridine derivs. as phytopathogenic fungicides) 326807-13-0P 326808-86-0P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of pyridine derivs. as phytopathogenic fungicides)

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     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of pyridine derivs. as phytopathogenic fungicides)
                                                                  118-91-2,
     86-55-5, 1-Naphthoic acid
                                 89-98-5, 2-Chlorobenzaldehyde
                            608-31-1, 2,6-Dichloroaniline
                                                             614-21-1,
     2-Chlorobenzoic acid
                           1777-82-8, 2,4-Dichlorobenzyl alcohol
                                                                     3034-19-3,
     2-Nitroacetophenone
                                          4659-45-4, 2,6-Dichlorobenzoyl
     2-Nitrophenylhydrazine
                             3886-69-9
                69045-84-7, 2,3-Dichloro-5-trifluoromethylpyridine
     chloride
                                                             75408-89-8,
     70591-20-7, [(Diphenylmethylene)amino]methyl cyanide
                              79456-26-1, 2-Amino-3-chloro-5-
     4-Acetylbiphenyl oxime
                                                           175277-50-6,
     trifluoromethylpyridine
                               89570-82-1
                                             118386-83-7
     3-Chloro-5-trifluoromethylpyridine-2-carboxaldehyde
                                                           175277-52-8,
     3-Chloro-2-(chloromethyl)-5-trifluoromethylpyridine
                                                            276875-21-9,
                                                          326809-09-0
     1-(3,4-Difluorophenyl)-1-ethanamine
                                            326809-08-9
     326809-10-3, 2-(3-Bromo-4-methoxyphenyl)-1H-imidazole
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of pyridine derivs. as phytopathogenic fungicides)
              THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
(1) Agrevo Uk Ltd; GB 2307177 A 1997 HCAPLUS
(2) Agrevo Uk Ltd; WO 9907687 A 1999 HCAPLUS
(3) Anon; PATENT ABSTRACTS OF JAPAN 1983, V007(114), PC-166
(4) Anon; PATENT ABSTRACTS OF JAPAN 1989, V013(379), PC-628
(5) Anon; PATENT ABSTRACTS OF JAPAN 1990, V014(310), PC-0736
(6) Anon; PATENT ABSTRACTS OF JAPAN 1992, V016(148), PC-0928
(7) Anon; PATENT ABSTRACTS OF JAPAN 1995, V1995(04)
(8) Basf Ag; EP 0350691 A 1990 HCAPLUS
(9) Basf Ag; WO 9710215 A 1997 HCAPLUS
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(11) Briggs, G; WO 9850352 A 1998 HCAPLUS
(12) Ciba Geigy Ag; EP 0288976 A 1988 HCAPLUS
(13) Ciba Geigy Ag; EP 0577555 A 1994 HCAPLUS
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(14) Dow Chemical Co; GB 2068365 A 1981 HCAPLUS

IT

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(15) Dow Chemical Co; EP 0287691 A 1988 HCAPLUS
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(16) Hamprecht, G; WO 9842671 A 1998 HCAPLUS

(17) Ihara Chemical Ind Co; EP 0648752 A 1995 HCAPLUS

- (18) Ishihara Sangyo Kaisha Ltd; JP 02104575 A 1990 HCAPLUS
- (19) Ishihara Sangyo Kaisha Ltd; JP 07025853 A 1995 HCAPLUS
- (20) Ishihara Sangyo Kk; JP 58035174 A 1983 HCAPLUS
- (21) Kyowa Hakko Kogyo Kk; EP 0882717 A 1998 HCAPLUS
- (22) La Roche, H; EP 0270061 A 1988 HCAPLUS
- (23) Minn; HCAPLUS
- (24) Minn; SYNLETT 1991, 2, P115 HCAPLUS
- (25) Mitsubishi Petrochem Co Ltd; JP 04005282 A 1992 HCAPLUS
- (26) Mitsui Petrochem Ind Ltd; JP 01131146 A 1989 HCAPLUS
- (27) Moloney Brian Anthony; WO 9942447 A 1999 HCAPLUS
- (28) Sumitomo Chemical Co; EP 0469711 A 1992 HCAPLUS
- (29) Sumitomo Chemical Co; EP 0648729 A 1995 HCAPLUS
- (30) Uniroyal Chem Co Inc; WO 9207848 A 1992 HCAPLUS

326807-73-2P 326807-74-3P 326807-75-4P

326807-76-5P 326807-77-6P 326807-79-8P

326807-80-1P 326807-81-2P 326807-82-3P

326807-83-4P 326807-84-5P 326807-85-6P

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326807-90-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of pyridine derivs. as phytopathogenic fungicides)

RN 116389-04-9 HCAPLUS

CN Benzoic acid, 2-chloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-67-4 HCAPLUS

CN Benzoic acid, 2-nitro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-68-5 HCAPLUS

CN Benzoic acid, 2,6-dimethoxy-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-69-6 HCAPLUS

CN Benzoic acid, 2-methyl-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-71-0 HCAPLUS

CN Cyclopropanecarboxylic acid, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-72-1 HCAPLUS

CN Cyclohexanecarboxylic acid, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-73-2 HCAPLUS

CN Benzoic acid, 2,6-dichloro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

RN 326807-74-3 HCAPLUS

CN Benzoic acid, 2-nitro-, 2-[3-chloro-5-(trifluoromethy1)-2-pyridiny1]-2-

methylhydrazide (9CI) (CA INDEX NAME)

RN 326807-75-4 HCAPLUS

CN Benzoic acid, 2,6-dimethoxy-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

RN 326807-76-5 HCAPLUS

CN Benzoic acid, 2-methyl-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

RN 326807-77-6 HCAPLUS

CN Benzoic acid, 2-chloro-6-fluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

RN 326807-79-8 HCAPLUS

CN Cyclopropanecarboxylic acid, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

RN 326807-80-1 HCAPLUS

CN Cyclohexanecarboxylic acid, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-2-methylhydrazide (9CI) (CA INDEX NAME)

RN 326807-81-2 HCAPLUS

CN Benzoic acid, 2,6-dichloro-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-82-3 HCAPLUS

CN Benzoic acid, 2-nitro-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-83-4 HCAPLUS

CN Benzoic acid, 2,6-dimethoxy-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-84-5 HCAPLUS

CN Benzoic acid, 2-methyl-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-85-6 HCAPLUS

CN Benzoic acid, 2-chloro-6-fluoro-, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-87-8 HCAPLUS

CN Cyclopropanecarboxylic acid, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-88-9 HCAPLUS

CN Cyclohexanecarboxylic acid, 2-[5-chloro-3-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-89-0 HCAPLUS

CN Benzoic acid, 2,3,6-trifluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 326807-90-3 HCAPLUS

CN Benzoic acid, 2-chloro-6-fluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

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ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
     1994:217743 HCAPLUS
AN
     120:217743
DN
     Entered STN: 30 Apr 1994
ED
     Preparation of azinylhydroxybenzamides as herbicides and plant growth
TI
     regulators
     Luethy, Christoph; Fisher, Raymond
IN
     Ciba-Geigy A.-G., Switz.
PΑ
so
     PCT Int. Appl., 63 pp.
     CODEN: PIXXD2
DT
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     English
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IC
     ICM C07D239-52
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Title compds. [I; A = H, NR5R6, N:R7R8, OR9; X = N, CR4; Y = N, or if Z =AB N, may also = methine, fluoromethine, chloromethine; R1 = alkyl, alkynyl, cyclopropyl, chloromethyl, F2CH, F3C, MeO, EtO, alkylamino, Me2N, etc.; R2 = H, Me, F, Cl, alkoxy, difluoromethoxy, trifluoroethoxy, MeS, EtS; R3 = H, F, C1, Me, MeO, EtO; R4 = H, F, C1, Br, iodo, alkyl, CF3, vinyl, alkoxy, 2-propenyloxy, 2-propynyloxy, benzyloxy, PhO, triazolyl, thienyl, pyrazolyl, thienyl, etc.; R5 = H, alkyl; R6 = H, (substituted) alkyl, Ph, naphthyl, pyridyl, quinolyl, alkylcarbonyl, PhCO, alkylsulfonyl, PhSO2, etc.; R5R6N = (substituted) heterocyclyl; R7 = H, alkyl, alkylthio; R8 = alkyl, cycloalkyl, (substituted) Ph, alkoxy, alkylthio, alkoxycarbonyl, cyano; R7R8 = (CH2)4-5, SCH2CH2S; R9 = H, alkyl, alkenyl, alkynyl, carboxyalkyl, alkoxycarbonylalkyl, (substituted) PhCH2, Ph], were prepared Thus, ether II was stirred with NaH in THF to give title compound III. Several I at 3 kg/ha preemergent gave 80-100% control of Echinochloa crus-galli, Avena fatua, Abutilon theoplasti, etc.

ST azinylhydroxybenzamide prepn herbicide; plant growth regulator azinylhydroxybenzamide

IT Herbicides

(azinylhydroxybenzamides)

IT Plant hormones and regulators

RL: RCT (Reactant); RACT (Reactant or reagent)

(azinylhydroxybenzamides)

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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of, as herbicide and plant growth regulator) IT 141112-49-4P 141112-50-7P 141112-51-8P 141112-44-9P 141112-46-1P 141112-54-1P 141112-55-2P 141112-66-5P 141112-68-7P 141112-72-3P 141112-86-9P 141112-88-1P 144078-96-6P 153909-33-2P 153909-34-3P 153909-39-8P 153909-35-4P 153909-36-5P 153909-37-6P 153909-38-7P

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153909-60-5P
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RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as intermediate for azinylhydroxybenzamide herbicide and plant growth regulator)

IT 593-56-6, O-Methylhydroxylamine hydrochloride 39943-64-1 110284-78-1 113761-79-8 141112-41-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of azinylhydroxybenzamide herbicide and plant growth regulator)

IT 153909-12-7P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide and plant growth regulator)

RN 153909-12-7 HCAPLUS

CN Benzoic acid, 2-hydroxy-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-1-(4,6-dimethoxy-2-pyrimidinyl)hydrazide (9CI) (CA INDEX NAME)

- L11 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1992:214529 HCAPLUS
- DN 116:214529
- ED Entered STN: 31 May 1992
- TI Preparation of [(pyrimidin-2-yl)oxy]benzohydrazides and analogs as herbicides
- IN Hiratsuka, Mitsunori; Hirata, Naonori; Saitoh, Kazuo; Shibata, Hideyuki
- PA Sumitomo Chemical Co., Ltd., Japan
- SO Eur. Pat. Appl., 83 pp. CODEN: EPXXDW
- DT Patent
- LA English
- IC ICM C07D239-60

ICS C07D239-34; C07D239-38; C07D401-12; A01N043-54; C07D413-12; C07D413-14

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5

FAN.CNT 1

12774.	CIVI				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
					<del>-</del>
PI	EP 469711	A1	19920205	EP 1991-305672	19910624
	R: BE, CH,	DE, ES	, FR, GB, IT,	LI, NL	
	JP 05004971	A2	19930114	JP 1991-173257	19910617
	AU 9179136	A1	19920109	AU 1991-79136	19910620
	AU 638840	B2	19930708		
	CA 2046206	AA	19920106	CA 1991-2046206	19910704
•	BR 9102835	A	19920204	BR 1991-2835	19910704
	US 5135563	Α	19920804	US 1991-726218	19910705

PRAI JP 1990-178967 JP 1991-124816 19900705 19910426

OS MARPAT 116:214529

GΙ

$$\begin{array}{c|c}
Y^3 & Z & C & R^1 \\
Y^2 & X & N & R^2 & I
\end{array}$$

The title compds. [I; R1, R2 = C1-6 alkyl, (halo)C1-6 alkoxy, halo; X = O, S; Z = N, CY4; Y1-Y3 = H, halo, C1-6 alkyl, C1-6 alkoxy; Y4 = H, HO, HS, NO2, halo, C1-6 alkyl, etc.] [II; R = NR3NR4R5; R3 = H, C1-6 alkyl, (un)substituted Ph; R4, R5 = H, C1-6 alkyl, (halo)C1-6 alkoxy, (un)substituted Ph, PhCH2, (un)substituted pyridyl, etc.] were prepared by amidation of the parent carboxylic acids (II; R = OH). Thus, a prestirred mixture of 1.10 g 2-(4,6-dimethoxypyrimidin-2-yl)oxybenzoic acid and 0.77 g N,N'-carbonyldiimidazole in 10 mL THF was treated at 0°-5° by 0.72 g hydrazine monohydrate and the whole stirred for 30 min at that temperature to give 0.95 g title compound (I; R1 = R2 = MeO, Y1 = Y2 = Y3 = H,

X =
O, Z = CH) (III; R = NHNH2). The latter at 2.5 g/a in a flooding
treatment test in paddy field had activity 4 (the highest activity being 5
on a 0-5 scale) against barnyardgrass, bulrush and arrowhead, vs. activity
0 for the structural analog III (R = NH2). Approx. 62 I were prepared and 2
specific I are claimed.

ST pyrimidinyloxybenzohydrazide prepn herbicide; amidation dimethoxypyrimidinyloxybenzoate hydrazine herbicide prepn

IT Herbicides

([(pyrimidin-2-yl)oxy]benzohydrazides and analogs)

IT 7803-57-8, Hydrazine monohydrate 32957-26-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation by, of (pyrimidinyloxy)benzoic acid derivative, in preparation of herbicide)

IT 113761-80-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation of, by aminooxazolidinone, in preparation of herbicide)

IT 110284-78-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidation of, by hydrazine, in preparation of herbicide)

IT 141112-93-8P

IT

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as herbicid)

(propuration or, as mere-e,					
	136187-62-7P	136187-63-8P	136187-64-9P	141112-38-1P	141112-39-2P
	141112-40-5P	141112-41-6P	141112-42-7P	141112-43-8P	141112-44-9P
	141112-45-0P	141112-46-1P	141112-47-2P	141112-48-3P	141112-49-4P
	141112-50-7P	141112-51-8P	141112-52-9P	141112-53-0P	141112-54-1P
	141112-55-2P	141112-56-3P	141112-57-4P	141112-58-5P	141112-59-6P
	141112-60-9P	141112-61-0P	141112-62-1P	141112-63-2P	141112-64-3P
	141112-65-4P	141112-66-5P	141112-67-6P	141112-68-7P	
	141112-69-8P	141112-70-1P	141112-71-2P	141112-72-3P	141112-73-4P
	141112-74-5P	141112-75-6P	141112-76-7P	141112-77-8P	141112-78-9P
	141112-79-0P	141112-80-3P	141112-81-4P	141112-82-5P	
	141112-83-6P	141112-84-7P	141112-85-8P	141112-86-9P	
	141112-87-0P	141112-88-1P	141112-89-2P	141112-90-5P	141112-91-6P

141112-92-7P 141126-07-0P 141126-08-1P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)

IT 141112-65-4P 141112-83-6P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)

RN 141112-65-4 HCAPLUS

CN Benzoic acid, 2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

RN 141112-83-6 HCAPLUS

CN Benzoic acid, 2-chloro-6-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-, 2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]hydrazide (9CI) (CA INDEX NAME)

L11 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1988:524419 HCAPLUS

DN 109:124419

ED Entered STN: 14 Oct 1988

TI Preparation of five-membered heterocycles with three heteroatoms, as pesticides

IN Luethy, Christoph

PA Hoffmann-La Roche, F., und Co. A.-G., Switz.

SO Eur. Pat. Appl., 59 pp. CODEN: EPXXDW

DT Patent

LA German

IC ICM C07D271-10 ICS C07D413-04; C07D249-12; C07D285-12; A01N043-653; A01N043-82

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 1, 28

L TATA . A	CIVI				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	EP 270061	A2	19880608	EP 1987-117698	19871130
	EP 270061	A3	19881117		
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	DK 8705709	A	19880602	DK 1987-5709	19871030
	ZA 8708811	A	19880727	ZA 1987-8811	19871124
	HU 45850	A2	19880928	HU 1987-5338	19871127
	JP 63154678	A2	19880627	JP 1987-303067	19871130
	BR 8706464	Α	19880712	BR 1987-6464	19871130
	AU 8782036	A1	19880602	AU 1987-82036	19871201
	AU 602372	B2	19901011		
	US 4943583	Α	19900724	US 1987-126804	19871201
PRAI	CH 1986-4785		19861201		
	CH 1987-3571		19870916		
OS	MARPAT 109:1244	19			
GI				•	

$$R^{1}N-N$$
 $R^{2}$ 
 $R^{2}$ 

The title heterocycles I [R1 = (un) substituted Ph or pyridyl; R2 = substituted Ph; X = O, S, NR3, Y = S, O; R3 = Me, halomethyl, 1-propynyl] are prepared as insecticides and acaricides (no data). A mixture of 2-chloro-6-fluoro-N'-(α,α,α-trifluoro-o-tolyl) benzhydrazide, phosgene and toluene was refluxed for 16 h to give 5-(2-chloro-6-fluorophenyl)-3-(α,α,α-trifluoro-o-tolyl)-1,3,4-oxadiazol-2(3H) one. An emulsion concentrate comprised I 250, N-methyl-2-pyrrolidone 400, Ankopal N-100 75, and Ca dodecylbenzenesulfonate 25 g and Solvesso-100 to 1L.
ST pesticide oxadiazolone triazolone thiadiazolone prepn

IT Pesticides

(heterocycles with 3-heteroatoms, preparation of)

IT 75-44-5, Phosgene 463-71-8, Thiophosgene 503-38-8, Trichloromethyl chloroformate, 541-41-3, Ethyl chloroformate
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization by, of benzhydrazide derivative)

116370-09-3P 116370-10-6P IT 107510-93-0P 107511-09-1P 107511-52-4P 116370-11-7P 116370-12-8P 116388-94-4P 116388-95-5P 116388-96-6P 116388-97-7P 116388-98-8P 116388-99-9P 116389-00-5P 116389-01-6P 116389-02-7P 116389-03-8P 116389-04-9P 116389-05-0P 116389-06-1P 116389-07-2P 116389-08-3P 116389-09-4P 116389-10-7P 116389-13-0P 116389-11-8P 116389-12-9P 116389-14-1P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and cyclization of)

IT 116370-10-6P 116370-13-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of, with Et chloroformate)

IT 107511-52-4P 116370-12-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of, with phosgene)

IT 116370-13-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

```
(Reactant or reagent)
         (preparation and cyclization of, with thiophosgene)
IT
     116370-09-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (preparation and cyclization of, with trichloromethyl chloroformate)
·IT
      107511-03-5P
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (preparation and methylation of)
IT
      116370-14-0P
      RL: SPN (Synthetic preparation); PREP (Preparation)
         (preparation of)
                                                                   116369-85-8P
                                    116369-83-6P
                                                    116369-84-7P
                     116369-82-5P
 IT
      116369-81-4P
                     116369-87-0P
                                                    116369-89-2P
                                                                   116369-90-5P
                                    116369-88-1P
      116369-86-9P
                                                                   116369-95-0P
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      116369-91-6P
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      116370-01-5P
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                                    116370-08-2P
                     116370-07-1P
      116370-06-0P
      116400-42-1P
      RL: AGR (Agricultural use); BAC (Biological activity or effector, except
      adverse); BSU (Biological study, unclassified); SPN (Synthetic
      preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
         (preparation of, as pesticide)
      41052-75-9, 2-Chlorophenylhydrazine hydrochloride
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with chlorofluorobenzoyl chloride)
      79455-63-3, 2-Chloro-6-fluorobenzoyl chloride
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with chlorophenylhydrazine)
      365-34-4, o-Trifluoromethylphenylhydrazine
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with difluorobenzoyl chloride)
 IT
      3107-34-4
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with difluorobenzoyl fluoride)
      18063-02-0, 2,6-Difluorobenzoyl chloride
 IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with trifluoromethylphenylhydrazine)
      13656-41-2, 2,6-Difluorobenzoyl fluoride
 TT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with trifluorotolylhydrazine)
      116389-03-8P 116389-04-9P
 IT
      RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
      (Reactant or reagent)
         (preparation and cyclization of)
      116389-03-8 HCAPLUS
 RN
      Benzoic acid, 2,6-difluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-
 CN
      pyridinyl]hydrazide (9CI) (CA INDEX NAME)
```

RN 116389-04-9 HCAPLUS CN Benzoic acid, 2-chloro-, 2-[3-chloro-5-(trifluoromethyl)-2pyridinyl]hydrazide (9CI) (CA INDEX NAME)

=> => fil reg FILE 'REGISTRY' ENTERED AT 18:35:32 ON 19 FEB 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 18 FEB 2004 HIGHEST RN 651705-73-6 DICTIONARY FILE UPDATES: 18 FEB 2004 HIGHEST RN 651705-73-6

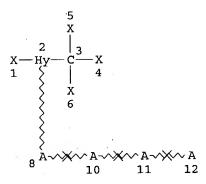
TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

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NODE ATTRIBUTES:
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GGCAT IS MCY UNS AT 2
DEFAULT ECLEVEL IS LIMITED
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GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 10

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N--
C-
Cy

 $N \rightarrow N \rightarrow C \rightarrow CY$ 

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STEREO ATTRIBUTES: NONE
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L20

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 $N \times N \times C \times A$  $N-\times C-\times N-\times A$  $C \times N \times C \times A$ @59 60 61 62 @55 56 57 58 @51 52 53 54  $C \times N \times N \times A$  $N \times C \times C \times A$  $0 \times N \times C \times A$ @71 72 73 74 @63 64 65 66 @67 68 69 70

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NODE ATTRIBUTES:

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STR L33

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE L35 3862 SEA FILE=REGISTRY SUB=L23 SSS FUL L33

100.0% PROCESSED 3979 ITERATIONS SEARCH TIME: 00.00.01

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3862 ANSWERS

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L14 8306 SEA FILE=REGISTRY SUB=L12 SSS FUL L13

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            382 S L25, L26
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L28
            118 S L28 AND (PD<=19990818 OR PRD<=19990818 OR AD<=19990818)
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L30
           4228 S L30 AND CL>=1
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              41 S L38 NOT 2001:136944/AN
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FILE COVERS 1907 - 19 Feb 2004 VOL 140 ISS 8 FILE LAST UPDATED: 18 Feb 2004 (20040218/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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ANSWER 40 OF 41 HCAPLUS COPYRIGHT 2004 ACS on STN
L39
     1988:524419 HCAPLUS
AN
     109:124419
DN
     Entered STN: 14 Oct 1988
ED
     Preparation of five-membered heterocycles with three heteroatoms, as
TI
     pesticides
TN
     Luethy, Christoph
     Hoffmann-La Roche, F., und Co. A.-G., Switz.
PA
     Eur. Pat. Appl., 59 pp.
SO
     CODEN: EPXXDW
DT
     Patent
LA
     German
IC
     ICM C07D271-10
     ICS C07D413-04; C07D249-12; C07D285-12; A01N043-653; A01N043-82
     5-4 (Agrochemical Bioregulators)
CC
     Section cross-reference(s): 1, 28
FAN.CNT 1
                                                             DATE
                                           APPLICATION NO.
                      KIND DATE
     PATENT NO.
     ______
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                                           EP 1987-117698
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PI
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19900724

19861201 19870916

Α

CH 1987-3571 OS MARPAT 109:124419

US 4943583

PRAI CH 1986-4785

GI

The title heterocycles I [R1 = (un)substituted Ph or pyridyl; R2 = substituted Ph; X = 0, S, NR3, Y = S, O; R3 = Me, halomethyl, 1-propynyl] are prepared as insecticides and acaricides (no data). A mixture of 2-chloro-6-fluoro-N'-( $\alpha,\alpha,\alpha$ -trifluoro-o-tolyl)benzhydrazide, phosgene and toluene was refluxed for 16 h to give 5-(2-chloro-6-fluorophenyl)-3-( $\alpha,\alpha,\alpha$ -trifluoro-o-tolyl)-1,3,4-oxadiazol-2(3H)one. An emulsion concentrate comprised I 250, N-methyl-2-pyrrolidone 400, Ankopal N-100 75, and Ca dodecylbenzenesulfonate 25 g and Solvesso-100 to 1L.

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US 1987-126804

19871201 <--

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Pesticides
IT
        (heterocycles with 3-heteroatoms, preparation of)
                         463-71-8, Thiophosgene
                                                   503-38-8, Trichloromethyl
     75-44-5, Phosgene
IT
                    541-41-3, Ethyl chloroformate
     chloroformate
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (cyclization by, of benzhydrazide derivative)
                                                                  116370-10-6P
                                   107511-52-4P
                                                   116370-09-3P
                    107511-09-1P
IT
     107510-93-0P
                                                                  116388-96-6P
                                   116388-94-4P
                                                   116388-95-5P
     116370-11-7P
                    116370-12-8P
                                                                  116389-01-6P
                                   116388-99-9P
                                                   116389-00-5P
     116388-97-7P
                    116388-98-8P
     116389-02-7P 116389-03-8P 116389-04-9P
                                              116389-05-0P
                                                                  116389-10-7P
                                   116389-08-3P
                                                   116389-09-4P
     116389-06-1P
                    116389-07-2P
     116389-11-8P
                    116389-12-9P
                                    116389-13-0P
                                                   116389-14-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of)
IT
     116370-10-6P
                    116370-13-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of, with Et chloroformate)
                    116370-12-8P
IT
     107511-52-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of, with phosgene)
IT
     116370-13-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of, with thiophosgene)
     116370-09-3P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and cyclization of, with trichloromethyl chloroformate)
IT
     107511-03-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and methylation of)
IT
     116370-14-0P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
                                    116369-83-6P
                                                   116369-84-7P
                                                                   116369-85-8P
                    116369-82-5P
TT
     116369-81-4P
                                                                   116369-90-5P
                    116369-87-0P
                                    116369-88-1P
                                                   116369-89-2P
     116369-86-9P
                                                   116369-94-9P
                                                                   116369-95-0P
                                    116369-93-8P
                    116369-92-7P
     116369-91-6P
     116369-96-1P 116369-97-2P 116369-98-3P
                                               116369-99-4P
                                                   116370-03-7P
                                                                   116370-04-8P
                    116370-01-5P
                                    116370-02-6P
     116370-00-4P
                    116370-06-0P
                                    116370-07-1P
                                                   116370-08-2P
                                                                   116370-15-1P
     116370-05-9P
     116400-41-0P
                    116400-42-1P
     RL: AGR (Agricultural use); BAC (Biological activity or
     effector, except adverse); BSU (Biological study, unclassified); SPN
     (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
         (preparation of, as pesticide)
     41052-75-9, 2-Chlorophenylhydrazine hydrochloride
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with chlorofluorobenzoyl chloride)
     79455-63-3, 2-Chloro-6-fluorobenzoyl chloride
TT
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with chlorophenylhydrazine)
     365-34-4, o-Trifluoromethylphenylhydrazine
IT
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with difluorobenzoyl chloride)
IT
     3107-34-4
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (reaction of, with difluorobenzoyl fluoride)
IT
     18063-02-0, 2,6-Difluorobenzoyl chloride
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RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with trifluoromethylphenylhydrazine)

13656-41-2, 2,6-Difluorobenzoyl fluoride IT

RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, with trifluorotolylhydrazine)

116389-03-8P 116389-04-9P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

116389-03-8 HCAPLUS RN

Benzoic acid, 2,6-difluoro-, 2-[3-chloro-5-(trifluoromethyl)-2-CN pyridinyl]hydrazide (9CI) (CA INDEX NAME)

116389-04-9 HCAPLUS RN

Benzoic acid, 2-chloro-, 2-[3-chloro-5-(trifluoromethyl)-2-CN pyridinyl]hydrazide (9CI) (CA INDEX NAME)

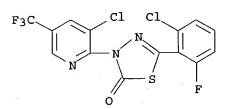
116369-97-2P 116369-98-3P ΙT

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of, as pesticide)

116369-97-2 HCAPLUS RN

1,3,4-Thiadiazol-2(3H)-one, 5-(2-chloro-6-CN (trifluoromethyl) -2-pyridinyl] - (9CI) (CA



116369-98-3 HCAPLUS

RN1,3,4-Oxadiazol-2(3H)-one, 5-(2-chlorophenyl)-3-[3-chloro-5-CN(trifluoromethyl) -2-pyridinyl] - (9CI) (CA INDEX NAME)

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